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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,296	11/25/2003	Alnasir Ladha	11312	9107

7590 01/18/2007

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EXAMINER	
ALI, MOHAMMAD	
ART UNIT	PAPER NUMBER
2166	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/722,296	LADHA ET AL.	
	Examiner	Art Unit	
	Mohammad Ali	2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) *1-7* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11/25/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's election of Group II including claims 8-25 in the reply filed on 11/01/06 is acknowledged.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

the claimed invention is directed to non-statutory subject matter.

Claims 8-25 are non-statutory because the claimed invention does not fall within at least one of the four categories of patent eligible subject matter recited in 35 U.S.C. 101 (process, machine, manufacture, or composition of matter), especially claim 15; or

(b) the claimed invention is directed to a judicial exception to 35 U.S.C. 101 (i.e., an abstract idea, natural phenomenon, or law of nature) and is not directed to a practical application of such judicial exception (e.g., because the claim does not require any physical transformation and the invention as claimed does not produce a useful, concrete, and tangible result) especially claims 8 and 20; or

(c) the claimed invention would impermissibly cover every substantial practical application of, and thereby preempt all use of, an abstract idea, natural phenomenon, or law of nature.

In order to statutory claims 8 and 20 needs tangible results, claim 15 needs a processor or memory to execute in order to have real world value for a software,

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 8-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Klein et al. ('Klein' hereinafter), USP, 6,453,313.

With respect to claim 8,

Klein teaches a method to manage interactions between applications and a data store (see Figs. 6, 15), comprising:

receiving a query for a data store and an identifier for an application that desires to process the results of the query and update the data store with application data (The fan out operator sends this request 'query' to each table partition, and receives in response all records that satisfy the cursor. The request is non-blocking because the fan out operator does not want or need to receive records added 'update' to the table partition after the request is made, see col. 15, lines 48-52, Figs. 15, 18, Klein).

concurrently initiating multiple instances of an application associated with the identifier on multiple processing nodes (tables in the database are partitioned, with various partitions being stored on different nodes of the relational database system. Such partitioning is often used for extremely large tables. Various tables within a

database are stored on different nodes of the system. Such distributed storage facilitates efficient, parallel 'concurrent' processing of queries, by distributing both the disk I/O and computational burden over multiple nodes. The "application process" represents the process or processes that execute not only the application program, but also the portions of the execution tree above the leaf nodes. The leaf nodes are executed by disk processes in each of the nodes of the transaction processing system. While one disk process for each node, the number of disk processes per node may vary from one implementation to another. A separate disk process may be used for each logical disk volume see col. 5, lines 51-67, Klein);

concurrently processing the query and housing the results in one or more application queues residing on one or more of the processing nodes (data flows between the nodes of the execution tree are handled by the use of a pair of queues, between parent and child nodes. In particular each parent node is coupled to a child node by a request queue and a fetched records queue. The request queue stores requests being conveyed from the parent node to its child node, while the fetched records queue conveys data and return codes (e.g., an end of file or end of scan code) being returned to the parent node in response to the requests (see col. 6, lines 1-10, Klein); and

concurrently servicing each of the instances of the application from the one or more application queues (the request queue and a fetched records queue are used by the transaction processing system to pre-fetch records not yet requested by the application that submitted the query being processed. Each node in the execution

tree other than the leaf nodes are automatically configured to request as many records as can be stored in the fetched records queue(s) between it and its child or children nodes, even if such records have not yet been requested by the application. Pre-fetching can improve system performance, by making use of otherwise dormant system resources, and can improve system responsiveness by having data ready for the application before it requests it, see col. 13, lines 64 to col. 14, lines 6, Klein).

As to claim 9,

Klein teaches concurrently housing the application data in one or more load queues residing on one or more of the processing nodes (see col. 14, lines 59-63, Klein); and

concurrently populating one or more tables residing on one or more of the processing nodes with the application data from the one or more load queues (see col. 14, lines 59-63, Klein).

As to claim 10,

Klein teaches merging the one or more tables into the data store (see col. 3, lines 15-18, Klein).

As to claim 11,

Klein teaches wherein the currently initiating further includes determining a total number of the applications to initiate based on configuration data (see col. 6, lines 1-10, Klein).

As to claim 12,

Klein teaches wherein the currently initiating further includes determining which of a number of the applications that are to be initiated on which of a number of the processing nodes based on the configuration data (see col. 14, lines 10-15, Klein).

As to claim 13,

Klein teaches concurrently synchronizing the application queues and the load queues on the multiple processing nodes when at least some of the processing nodes lack one of the one or more application queues or one of the one or more load queues (see col. 14, lines 59-63, Klein).

As to claim 14,

Klein teaches wherein the concurrently synchronizing further includes establishing socket based communications between the multiple processing nodes with a Transmission ControlProtocol/Internet Protocol (TCP/IP) (see col. 19, lines 30-35, Klein).

Claims 15-25 have the same subject matter except temporary tables, data warehouse and query results extraction and Klein teaches at col. 11, lines 11-17, col. 15, lines 30-35 et seq., and essentially rejected for the same reasons as discussed above.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kerwin et al. (USP, 6,898,609) teaches all the limitations especially

"provides a software method, for network database environments, permitting load

balancing, scalability and substantially simultaneous use by client users, comprising the steps of: providing multiple database instances wherein each such instance is substantially identical in data content, database structure, and primary key system; maintaining substantially real time records of status for each such multiple database instance; receiving a database query from at least one end-user application and determining such query to be a transactional query or non-transactional query; directing such database query to at least one selected instance of such multiple database instances upon a determination of such query being a non-transactional query; returning such non-transactional query results to the at least one end-user application; directing such database query to all instances of such multiple database instances upon a determination of such query being a transactional query; controlling such transactional queries to maintain substantial identicalness among such multiple database instances; propagating such transactional queries to such multiple database instances; returning such query results to the user; recognizing a failure in at least one instance of such multiple database instances, and adjusting to store such transactional query for later propagation; restoring such failed at least one instance of such multiple database instances to substantial identicalness with other such multiple database instances. Moreover, it provides such a method wherein each such non-transactional query is executed upon a randomly selected instance of such multiple database instances. Additionally, it provides such a method wherein the processing of such

non-transactional query commands as directed by a plurality of users is substantially simultaneous" see col. 5, lines 1-25, and col. 7, lines 1-16, Kerwin et al.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad Ali whose telephone number is (571) 272-4105. The examiner can normally be reached on Monday-Thursday (7:30 am-6:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mohammad Ali
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Art Unit 2166

MA
January 8, 2007